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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,129	07/24/2001	Mary Louise Mandich	Mandich 9-10	4928

7590 02/22/2002  
Docket Administrator  
Lucent Technologies, Inc.  
Room 3J-219  
101 Crawfords Corner Road  
Holmdel, NJ 07733-3030

EXAMINER

HOFFMANN, JOHN M

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 02/22/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Jeff Weinick

# Office Action Summary

Application No.

09/912,129

Applicant(s)

MANDICH ET AL.

Examiner

John Hoffmann

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-26, 28-41 and 44 is/are rejected.
- 7) ☒ Claim(s) 11, 27, 42 and 43 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 65-75 been renumbered 34-44.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --  
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 8-10, 12-15, 17 and 19-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Kyoto 4969941. All of the steps are clearly met, except for that gas and temperature: Col. 15 lines 56-63 discloses the claimed gas and temperatures within the claimed temperature range.

As to claim 2: claims are given their broadest reasonable interpretation. The list of claim 2 is deemed to be comprising in nature and is open to other bodies - including the Kyoto body. Alternatively, Kyoto "selected" the body from all other bodies which, of course, includes the claimed bodies.

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Claim 3 is also broadly constructed; it does not require a step of sol-gel processing. The Kyoto preform is indistinguishable from other preform making methods which utilize sol-gel processing. For example, using sol-gel processing to create the nozzle used to make the Kyoto body. The phrase "by a sol-gel process" is deemed to mean that a sol gel process was used somehow to make the preform.

As to claims 4-5, it is clear that the temperature would have to range (i.e. change) "from 400 to 800" and "from 600 to 700" so that it can reach the final dehydration temperature.

Claims 8-10 and 14-15 are clearly met.

As to claims 12-13 and 20: claims 12 and 20 are interpreted as requiring *at least one of a group comprised of*, because it is broader than *at least one of the group consisting of* and since the Office gives claims their broadest reasonable interpretation. This means the claimed list of treatments is opened to including the Kyoto treatment of dehydration.

As to claim 17 and 19, such is broadly constructed and reads on arbitrarily dividing the Kyoto process into two different treatment steps. The first one with the sulfur chloride and the second with sulfur chloride; both are at the same temperature.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-7, 21, 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kyoto 4969941.

It would have been obvious to perform routine experimentation to determine how long the preform should be dehydrated. Alternatively, the preform should be treated for at least a few hours to make sure the dehydration is complete.

As to claims 16 and 18, Kyoto teaches 10% or less gas. It would have been obvious to preform routine experimentation at levels of 1,2,3,4,5,6,7,8,9 and 10% to determine the optimal concentration. Although the Kyoto process might not have an optimal value in the 1-25 or the 6-7% ranges, the routine experimentation itself would require concentrations "about" the claimed concentrations.

As to claim 21: Claim 21 is very broad, it would have been obvious that there would have been a treatment subsequent to the halide treatment, such as storage, drawing, or coating.

Claims 22-26 and 28-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chandross 5240488 in view of either Kyoto reference (4902325 or 4969941).

Chandross teaches the invention substantially as claimed - as admitted by Applicant at page 9 of the instant application. Col 17, lines 1-17 teaches the heat treatment, but not the non-oxygenated sulfur chlorides. Rather, Chandross teaches dehydroxylation with helium and chlorine and that it ends up removing transition metals. Kyoto '325 teaches that other dehydrating agents (including  $S_2Cl_2$ ) col. 5, lines 11-14 can be used to decrease the hydroxyl content and Kyoto '941 teaches the same thing at col. 15, line 6. It would have been obvious to substitute one known silica dehydrating agent for another with no new or unexpected results.

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Claims 23-26, and 28-33 are clearly met; see how the broad claim language is interpreted by comparing the rejections in the other group of claim.

Claims 22-26 and 28-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bhandarkar 5356447 in view of Shintani 4264347.

Bhandarkar teaches the invention as claimed except for the use of specific gas, col. 3, line 55 to col. 4, line 26. Instead, Bhandarkar discloses that some routine experimentation was performed to determine the most optimal gas (col. 4, line 8). It would have been obvious to perform additional routine experimentation to determine what the best gas is. At col. 7, lines 16-43, col. 2, lines 28 Shintani teaches which gases can be used to remove impurities from silica fiber preforms. And/or would have been obvious to use any of the Shintani gases for the Bhandarkar gases because it is the mere substitution of one known cleaning gas for another. Further it is noted that the claim gas is a homolog of the Bhandarkar preferred gas - it just has one substituted Group VIB atom (sulfur) for another Group VIB atom (oxygen).

For the dependent claims, see how the claims are interpreted above. It is clear that this combination would meet the broad claim limitations of claims 23-25 and 28-33.

Claims 34-41 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bhandarkar 5356447 in view of Shintani 4264347.

Bhandarkar teaches the invention as claimed except for the use of specific gas, col. 3, line 55 to col. 4, line 26. Instead, Bhandarkar discloses that some routine experimentation was performed to determine the most optimal gas (col. 4, line 8). It would have been obvious to perform additional routine experimentation to determine what the best gas is. At col. 7, lines 16-43, col. 2, lines 28 Shintani teaches which

gases can be used to remove impurities from silica fiber preforms. And/or would have been obvious to use any of the Shintani gases for the Bhandarkar gases because it is the mere substitution of one known cleaning gas for another. Further it is noted that the claim gas is a homolog of the Bhandarkar preferred gas - it just has one substituted Group VIB atom (sulfur) for another Group VIB atom (oxygen). Further, col. 4, lines 19-26 spell out what one needs for a reactant. It is inherent that the glass is treated by the gas at all temperatures from about room temperature to the final temperature - including all temperatures within the 400-800C range

In addition, it would have been obvious to determine the optimal temperature for using sulfur chloride by routine experimentation.

Please refer to rejections of Application 09/109827 for any specific details not discussed above.

#### ***Allowable Subject Matter***

Claims 11, 27, and 42-43 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

Applicant's arguments filed 24 July 2001 have been fully considered but they are not persuasive.

It is argued that Bhandarkar teaches that the SO ion "is the key for effective removal", and that this teaches away from the claimed invention. Bhandarkar does not teach such; rather, the terms "appears", "thus far", "it appears", and "may be due" are used by Bhandarkar in the paragraph referred to by Applicant (spanning cols. 3-4).

One of ordinary skill would certainly realize that the Bhandarkar was 100% confident in the theory; other possibilities exist.

It is also argued that the prior art does not suggest the modification and that one would not expect success in modifying Bhandarkar (via the Shintani reference). The prior art need not suggest the modification. Changes in size, duplication of parts, and the like are obvious modifications which do not require teachings from the prior art. Routine experimentation is something that does not need a suggestion from the prior art. More importantly, Bhandarkar clearly leaves the possibility that superior cleaning compounds may be found. Looking at the totality of both references one WOULD expect success in modifying Bhandarkar by merely substituting cleaning agents - because nearly all of the compounds in the Bhandarkar reference are disclosed in Shintani, and the ones not disclosed are extremely similar to compounds in Shintani.



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It is still further argued that the Office is using an obvious-to-try rejection. Bhandarkar teaches at col. 4, lines 19-27 the only real requirements (as opposed to the the supposed SO moiety requirement). It is clear to one of ordinary skill that the Shintani list of compounds easily meets these requirements. The rejection is based on routine experimentation to find the best cleaning agent out of known cleaning agents. One of ordinary skill would guess that Bhandarkar would have liked to experiment with more cleaning agents - one of ordinary skill often does not have the time or funding or resources to experiment with all likely candidate.

### ***Conclusion***

This is a continuation of applicant's earlier Application No. 09/109827. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

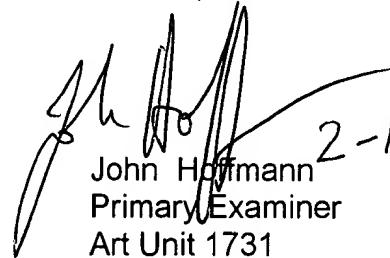
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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is 703-308-0469. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stan Silverman can be reached on 703-308-3837. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7115 for regular communications and 703-305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.

 2-14-02  
John Hoffmann  
Primary Examiner  
Art Unit 1731

jmh  
February 19, 2002